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Chair
Energy Security Board and Australian Energy Market Commission
Emailed to: info@esb.org.au

**Energy Consumers Australia submission to the Energy Security Board Interoperability Policy Directions Paper and Australia Energy Market Commission's Review into Consumer Energy Resources Technical Standards Consultation Paper.**

Dear Anna

The following submission from Energy Consumers Australia addresses the key questions raised by both the Energy Security Board (ESB) Interoperability Policy Directions paper and the Australian Energy Market Commission (AEMC) Review into CER Technical Standards Consultation paper. We have decided to combine our commentary and recommendations on both papers as we believe, from a consumer outcomes perspective, they are heavily related issues. We would like to thank the ESB and AEMC for the opportunity to provide comment on both ongoing workstreams which will have direct impact on consumer outcomes.

As the national voice for residential and small business energy users, Energy Consumers Australia advocates for a future Australian energy system that works for, and benefits, the households and small businesses who use it. Almost 1 in 4 of these households now own and operate their own energy infrastructure and resources which generate, store and export electricity back to the grid. Interoperability and technical standards directly impact the cost, functionality, and performance of these assets by enabling consumers to operate their owned devices with autonomy, agency, and ease, whilst also assisting broader market and system operation. Which is why technical standards are not only a matter for market or industry actors but must be designed and implemented in a way that supports consumers and their investments.

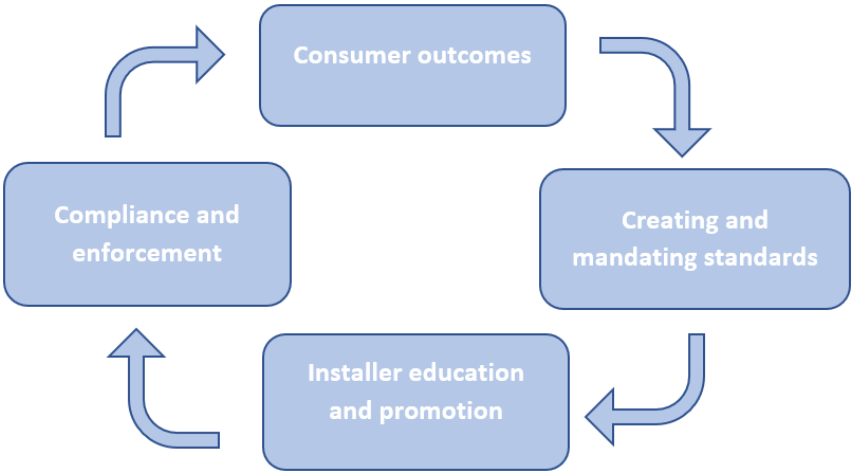
"How" technical standards are mandated and enforced, and "who" is responsible for mandating and enforcing, are the two key questions we see as unanswered in the current technical standards process. The following submission will make two key recommendations that address these questions.

1. That a policy framework for mandating and enforcing technical standards for CER (such as Figure 1) is adopted. Such a framework will help ensure that technical standards are designed and enforced with optimal consumer outcomes.
2. An independent governance body should be assigned the responsibility of applying this policy framework. Without clear roles and responsibilities assigned to an overarching body, a policy framework will be less likely to deliver technical standards which achieve positive consumer outcomes. We are interested in discussing the ESB's suggestion of a new national consumer energy resource technical regulator further but would maintain that this body be independent, apply a policy framework and maintain transparency.

**1. A policy framework for CER technical standards**

Figure 1 is an example of a policy framework that should be applied when implementing technical standards for CER. The cyclical nature of the framework represents the continuous and ongoing process of improving current standards and introducing new standards. Cleary defined roles and responsibilities must be assigned to each stage of the policy framework for it to be applied successfully, with a new body undertaking broader coordination to ensure each party responsible for each stage is fulfilling their role. The following sections 1.1, 1.2, 1.3 and 1.4 will address the 4 stages of this policy framework and how this applies to the challenges of Common Smart Inverter Profile Australia (CSIP-AUS) and AS4777.2.2020.

**Figure 1. Policy Framework for Technical Standards**




### 1.1 Consumer outcomes for CER technical standards

Consumer outcomes and benefits must be the foundation of the design, implementation, and ongoing enforcement of CER technical standards. These standards influence and act on the functioning of CER which are by definition consumer owned and invested assets. They also will typically increase the direct costs of CER investments. We would define good consumer outcomes as the following.

- Enabling choice and flexibility when purchasing CER, with the confidence consumers will be able to use the technology how they want to.
- Enabling equity of outcomes in the use and operation of CER and support inclusivity.
- Increasing the affordability and value proposition of CER for consumers' over time.
- Should non-compliance occur the consumer should not be penalised if they are unaware of non-compliance or the cause for such non- compliance.
- A single point of contact to resolve any problems of interoperability or compliance.

### 1.2 Mandating standards

Before mandating any CER technical standard, we believe a transparent and consistent assessment framework must be applied to demonstrate the costs and benefits to consumers. This assessment serves two very important purposes. The first is it ensures the benefits of the mandated standard for consumers outweigh any associated costs. The second is it demonstrates the potential benefits this standard could have if it was applied consistently. This helps make a clear case for a resourced effort in enforcing and policing compliance rates. In terms of a standard assessment framework for this cost/benefit analysis we support the ESB applying the framework[1] from their previous Consultation Paper released in December 2021 and publishing the results of this to ensure transparency.

Mandating standards which support behind the meter coordination (Domain 2) are essential for consumers realising the benefits of important to CER to network interoperability (Domain 3). As noted in our previous submission to the ESB, for consumers to access the full value of inverter-based standards such as CSIP-Aus they need to be able to coordinate the energy resources on their site. Without this coordination when consumers with multiple behind the meter resources sign up to offers such as a dynamic export limit their

[1] https://www.energy.gov.au/sites/default/files/2021-12/FTI%20-%20Assessment%20Framework%20for%20DER%20interoperability%20policy%20-%20December%202021.pdf

benefits may be limited by poorly coordinated devices which do not respond in optimal ways to network signals. CSIP-Aus should be implemented in a way that supports open non-proprietary communication channels in order to ensure consumers behind the meter are capable of coordination. This would be best achieved by requiring CSIP-Aus the Native Model of implementation, which unlike the cloud implantation model ensures open communications channels between all devices and the inverter.

### 1.3 Solar installer and retailer education and promotion

As the AEMC notes in their consultation paper, low compliance may be a result of difficulties experienced at the installation phase of the CER device. Consumers rely on their solar installers to set up their devices to be operational. An example of this dependence is seen in SA Power Network's flexible export trial which found that solar installers and retailers lack of awareness was a key barrier for consumers participating in the trial[2]. Without access to clear, understandable, and consistent communication, solar installers may not be able to deliver the service consumers expect. Installer education and promotion should be a key stage in the process of implementing standards. This would clearly outline expectations of solar retailers and installers in this space and clarify which standard should be applied. It is important that installer education and promotion occurs immediately after a mandated standard to ensure high rates of correct installation from the outset.

The Australian Energy Regulator (AER) has indicated in other work streams that DNSPs are required to effectively communicate with solar retailers and installers on issues such as flexible exports. However, the AER currently has no powers to enforce that communication[3]. DNSPs are directly impacted by high levels of non-compliance with CER technical standards such as AS 4777.2.2020. The California Public Utilities Commission recognised the importance of compliance for utility providers, and as a result in 2008 adopted a 'Long Term Energy Efficiency Strategic Plan'. This plan includes specific budget for utilities to work on compliance improvement to standards[4]. The ESB and AEMC could consider presenting a similar program to the AER, who may be able to incorporate in or complement existing incentives schemes for DNSPs.

### 1.4 Compliance and enforcement

In addition to installer education and promotion as mentioned above, achieving standards compliance requires effective policing, consequences and remediations. It is worthwhile to consider how technical standards reinforce ways of interacting with energy networks and resources as shared public infrastructure. Though we argue standards need to be set in a framework that recognises good consumer outcomes, we cannot ignore the key role CER standards play in maintaining effective operation of the system as well. If a few groups of individuals choose to act with only their own interests in mind, then everyone else will be worse off. Whereas, if individuals all act in the greater good, everyone will benefit. This has been described in energy academia as consumerist vs citizen [5] logic. The consumerist logic reflects the position you take when your main concern and priority is your personal wants and needs, you maximise your own wellbeing. Whereas the citizen logic reflects the position you take when you are concerned with broader, community or public interest in which you try to consider what is best for the society.

The energy system, as a market-based system, enables consumers to pay and use electricity for their own use (consumerist logic), whilst at the same time, is set up to encourage use at particular times, navigating periods of scarcity and abundance to ensure broader system security and reliability of supply (citizen logic). A tension then emerges where we can act in both or use different sets of logic depending on different energy issues or circumstances. Given this landscape consumers need to navigate, it is particularly important that technical standards make consumers lives easier not harder, that they are working how they are intended, are not at risk for being 'locked in' and can coordinate behind the meter for the highest chance of buy in to act both in their interest (consumerist logic) and support the operation of the energy system (citizen logic).

[2] https://www.sapowernetworks.com.au/public/download.jsp?id=320975
[3] https://www.aer.gov.au/system/files/Flexible%20Exports%20-%20final%20Issues%20Paper_0.pdf
[4] https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/2/5413-2013-14-codes-standards-fact-sheet.pdf
[5] Electricity Consumption Should There Be a Limit? Implications of People's Attitudes for the Forming of Sustainable Energy Policies on JSTOR

### 1.4.1 Consequences for non-compliant systems

Without consequences, such as penalties, for non-compliance to required standards, rates of compliance will likely remain low and enforcement management will not be as effective. More often than not, the consumer trusts the manufacture to create a safe product that adheres to all the relevant standards, and that the installer sets up their devices in correct operational capacity to relevant standards. It would be unreasonable to suggest that consumers *are* or *should* be aware of the state compliance of technical standards of their device or *are* or *should* be able to rectify this themselves. In this framing, we recommend that the consumer should not be penalised or bear the consequences for non-complying devices if they are unaware of such non-compliance.

### 1.4.2 Remedies for non-compliant systems

Part of the process of compliance to technical standards includes the remediation of non-compliant systems to the mandated standard. Who is responsible for this remediation process, who is held accountable for its application and how this will be carried out, is something we recommend the AEMC consider as part of their review process. If non-compliance occurs, consumers should be alerted of the issue and given a single point of contact to assist them in remediating their site. Further, consumers shouldn't face penalties or additional costs due to the non-compliance in terms of site visits or fees.

### 2. An independent governance body who has the responsibility of applying a policy framework for CER technical standards

Without clear roles and responsibilities, a technical standards policy framework will not be applied successfully, leading to poor outcomes for the both the consumer and the market. Responsibilities need to be clearly assigned to each stage of a framework to enable a sense of accountability and ensure the policy framework is utilised effectively. We see value in discussing the ESB's suggested option of a new national consumer energy resource technical regulator who would be responsible for applying such a framework in more detail. We do acknowledge that we may need an interim solution in the meantime as a new body will take time to be established but see this option as most aligned with the long-term interests of consumers. A new technical standards body and framework could sit alongside current energy efficiency standards programs such as the Greenhouse and Energy Minimum Standards Legislation (GEMS).

Thank you for the opportunity to provide our feedback on the ESB's Interoperability for Consumer Energy Resources (CER) Directions paper and the AEMC's Review into CER Technical Standards. If you have any questions about our comments in this submission, or require further detail, please contact Marie Harrowell marie.harrowell@energyconsumersaustralia.com.au or Taneesha Amos-Hampson taneesha.a@energyconsumersaustralia.com.au

Yours sincerely,

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